

Patent Claims

1. Ball bearing with an inner race and an outer race coaxial with respect to it, wherein between inner race and outer race bearing balls are disposed, which are guided by means of a cage, wherein the cage is comprised of a composite material, characterized in that the composite material comprises epoxide resin as well as fibers.
2. Ball bearing as claimed in claim 1, characterized in that the epoxide resin is temperature resistant at a temperature higher than 130EC, in particular at temperatures higher than or equal to 134EC and/or that the epoxide resin is pressure resistant, in particular at pressures about or above 1 bar, and/or that the epoxide resin is moisture resistant, in particular is resistant under a saturated vapor atmosphere.
3. Ball bearing as claimed in one of the preceding claims, characterized in that the composite material is entirely comprised of epoxide resin as well as fibers.
4. Ball bearing as claimed in one of the preceding claims, characterized in that the fibers are natural fibers and/or synthetic fibers.
5. Ball bearing as claimed in one of the preceding claims, characterized in that the fibers are developed as a carrier material, in particular a strip-shaped carrier material, for the epoxide resin.
6. Ball bearing as claimed in claim 5, characterized in that the carrier material is implemented as a structured fabric, in particular cloth.
7. Ball bearing as claimed in claim 6, characterized in that the carrier material is developed as a fibrous web.
8. Ball bearing as claimed in one of the preceding claims, characterized in that the cage (3), in particular the fibers, is filled with lubricant.
9. Ball bearing as claimed in one of the preceding claims, characterized in that the ball bearing is a miniature ball bearing with an outer diameter of less than or equal to 30 millimeters, in particular has an outer diameter between approximately 6 mm and 12 mm.